

JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: **RO Shift Turnover**

ID Number: JPM-A01

Revision: 1

II. Initiated:



Fred Nygard
Developer

7/14/2000

Date

III. Reviewed:



Technical Reviewer

7/16/00

Date

IV. Approved:

User Department Supervisor

Date



Nuclear Training Supervisor

7/14/00

Date

JOB PERFORMANCE MEASURE WORKSHEET

Facility: MP-2 Examinee: _____

JPM Number: JPM-A01 Rev. 1

Task Title: **RO Shift Turnover**

System: Administrative

Time Critical Task: Yes _____ No X

Validated Time (minutes): 10

Task No.(s): NUTIMS 119-02-030

Applicable To: SRO _____ RO X PEO _____

K/A No.: 2.1.3 K/A Rating: 3.0/3.4

Method of Testing:

Simulated Performance: _____ Actual Performance: X

Location:

Classroom: _____ Simulator: _____ In-Plant: X

Task Standards: At the completion of this JPM, the RO should perform a review of documents and find incorrect information related to a shift turnover.

Required Materials • Shift Manager Log (Auto Log) - (See page 7 of this JPM)
(procedures,equipment):

General References: U2 COP 200.1 "Conduct of Operations", Section 1.19 (Rev.3,Ch.1)

****** READ TO THE EXAMINEE ******

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE WORKSHEET

JPM Number: JPM-A01

Rev. 1

Initiating Cues:

- Assume you have just arrived in the control room at the beginning of your shift. List the documents that you should review prior to walking down the control board.
- You may refer to any documents or procedures during this JPM and you may proceed to the control room as if you are taking the shift if necessary to list the documents that you should review.
- I will act as the off going BOP.

Initial Conditions:

Simulator Requirements: N/A

****** NOTES TO EXAMINER ******

1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly.
2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
4. Under **NO** circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM-A01 TITLE: RO Shift Turnover

START TIME: 

STEP 1 ___ Performance Steps: List the documents that you should review prior to conducting a control board walkdown during a shift turnover.

GRADE ___ ___ Standards: *Examinee lists the type of documents that he would review. The list should include the following:*

- OPS Form 2619A-4, "Shift Turnover Report")
- Control Room Log book (ie. SM Log or Autolog)
- Night Order Log (for any new Night Orders)

The examinee may include additional documents (ie. Radwaste Log Book (AutoLog) and Radwaste Night Order Book or others listed in Ops Form 2619A-4) that he may want to review. He may refer to and show documents he uses during a turnover.

Cue: Suggest that the examinee proceed to the control room if it seems necessary to put the examinee at ease.

Comments: The SP 2619A-4 Shift Turnover Report lists items that should be reviewed. The operator may also refer to U2 OP 200.1 The operator may proceed to the control room if he feels the need to review or look at the procedures or documents that need to be reviewed.

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**PERFORMANCE INFORMATION**

JPM ID NUMBER: JPM-A01 TITLE: RO Shift Turnover

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STEP 2       Performance Steps: Review the SM Log (autolog) and ask the off-going operator about anything out of the ordinary.

GRADE \_\_\_       Standards: *During the review of the SM log the examinee should recognize that there is a potential problem with taking the 'B' AFW pump out of service when Facility 2 is protected. The examinee may also ask why both AFW pumps are out of service at the same time. Facility 2 is protected and 'A' AUX Feed pump out for PMs as described in the 0730 entry. The 109 and 1110 entries are related to the 'B' Aux Feed pump.*

Cue: **Provide a copy of the attached auto log and indicate that it should be examined and commented on as necessary as if this was a shift turnover.**

Comments: **After this step is completed, the JPM is considered complete.**

STOP TIME: **██████████**

**VERIFICATION OF JPM COMPLETION**

Job Performance Measure No.    JPM-A01

Rev.                    1

Date Performed: \_\_\_\_\_

Operator: \_\_\_\_\_

Evaluator(s): \_\_\_\_\_

For examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task?    Yes \_\_\_\_\_ No   X  

Validated Time (minutes):              10  

Actual Time to Complete (minutes): \_\_\_\_\_

Result of JPM: \_\_\_\_\_ (Denote by an S for satisfactory or a U for unsatisfactory)

Areas for Improvement:

|          |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |         |
|----------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| 07/01/00 | 0730 | Shift Hours: 07-19, Tuesday, SM: H. Williamson, US: J. Hoagland, WCSRO: J. Fillion, SPO: M. Lettrich, PPO J. Jorinscay, STA:M. Strollo, U/I: K. Dingle (US), TB: G. Chaude, AB: L. Swadley, FL/FBA: M. Pucel. Plant in Mode:1, Rx power: 100 % , MWe: 904, Control Rods: ARO, Blowdown: 45gpm (#1), 45gpm (#2), RCS Circulation: RCPs, Tave: 571, Onsite Power: NSST, Pzr Level: 65%, SFP Lvl: 36' 10", TSAS: 3.4.11b act a (PZR vent path isolated), 3.3.3.9b act 2 (RM-4262), 3.7.1.2 act a ('A' Aux Feed pump out for PM's) TRMs: F.3.1.a.1 & F.3.1.a.2 (Fire Barriers), B.3.1 (U-2 fire pump), Also see Impairment sheet. Facility 2 Protected. | clairjj | myerstm |
| 07/01/00 | 0810 | RM-8132 is secured to change out Charcoal and Particulate filters for Chemistry. Table 3.3-13 No Action Required due to that outages are permitted for a maximum of 12 hours for the purpose of maintenance and performance of required tests, checks, calibrations, or sampling.                                                                                                                                                                                                                                                                                                                                                                   | clairjj | myerstm |
| 07/01/00 | 0817 | Chemist returned RM-8132 to service, flow 3.25 CFM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | clairjj | myerstm |
| 07/01/00 | 0825 | Entered TSAS 3.7.6.1b. Both trains of Control Room ventilation Inoperable while testing door 249. With both trains of Control Room ventilation Inoperable immediately suspend the movement of fuel assemblies within the Spent Fuel Pool and the movement of shielded casks over the Spent Fuel Pool cask laydown area. Restore at least one Inoperable train to Operable status within 1 hour, or be in Hot Standby within the next 6 hours, and cold shutdown within the following 30 hours                                                                                                                                                       | clairjj | myerstm |
| 07/01/00 | 0840 | Exited TSAS 3.7.6.1b. Door testing complete. Both trains of Control Room ventilation are Operable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | clairjj | myerstm |
| 07/01/00 | 0845 | Released the following AWOs to the WIN Team: M2-00-12193 Replace gasket on LS-5331 ( 2B feedwater heater low level alarm )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | clairjj | myerstm |
| 07/01/00 | 0930 | Commenced Discharge of TK-10 to LIS. Level 86%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | clairjj | myerstm |
| 07/01/00 | 1000 | Traveling screens placed in Manual slow for greasing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | clairjj | myerstm |
| 07/01/00 | 1049 | Shift Manager accepted 06-12 portion of 2619A-1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | clairjj | myerstm |
| 07/01/00 | 1109 | Placed 'B' Aux Feed pump out of service forPMs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | clairjj | myerstm |
| 07/01/00 | 1110 | Released AWO M2-00-08904 'B' Aux Feed pump PMs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | parre   | myerstm |

## EXAMINEE HANDOUT

JPM ID Number: A01

### Initiating Cues:

- Assume you have just arrived in the control room at the beginning of your shift. List the documents that you should review prior to walking down the control board.
- You may refer to any documents or procedures during this JPM and you may proceed to the control room as if you are taking the shift if necessary to list the documents that you should review.
- I will act as the off going BOP.

### Initial Conditions:



# JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: Determine Shutdown Margin

ID Number: JPM-A08


Revision: 0

II. Initiated:

  
\_\_\_\_\_  
Fred Nygard  
Developer

6/15/2000  
\_\_\_\_\_  
Date

III. Reviewed:

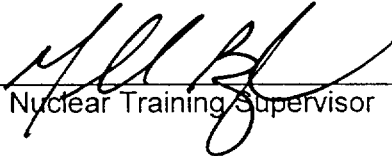
  
\_\_\_\_\_  
Technical Reviewer

6/15/00  
\_\_\_\_\_  
Date

IV. Approved:

\_\_\_\_\_  
User Department Supervisor

\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Nuclear Training Supervisor

6/20/00  
\_\_\_\_\_  
Date

**JOB PERFORMANCE MEASURE WORKSHEET**

Facility: MP-2 Examinee: \_\_\_\_\_

JPM Number: JPM-A08 Rev. 0

Task Title: **Determine Shutdown Margin**

System: N/A

Time Critical Task: Yes \_\_\_\_\_ No X

Validated Time (minutes): 15

Task No.(s): NUTIMS #121-01-145

Applicable To: SRO X RO X PEO \_\_\_\_\_

K/A No.: 2.1.25 K/A Rating: 2.8/3.1  
192002 K1.13 3.5/3.7

Method of Testing:

Simulated Performance: \_\_\_\_\_ Actual Performance: X

Location:

Classroom: X Simulator: X In-Plant: X

Task Standards:

At the completion of this JPM, examinee has determined the required shutdown boron concentration within +50/-15 ppm and that SDM is being met.

Required Materials

(procedures, equipment):

- OP 2208 (and all associated OPS Forms)
- Calculator

General References:

OP 2208, Section 4.3 (Rev. 12, Ch. 2)

**\*\*\*\* READ TO THE EXAMINEE \*\*\*\***

*I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.*

## JOB PERFORMANCE MEASURE WORKSHEET

JPM Number:           JPM-A08          

Rev.           0          

Initiating Cues:

- The Unit Supervisor has directed you to verify adequate SDM for the first full hour immediately following the plant trip, taking advantage of the Xenon worth modification option, in accordance with OP 2208.

Initial Conditions:

- The plant has tripped from 100% steady-state equilibrium power. It is expected to startup in approximately 8 hours.
- The trip was uncomplicated and normal temperature and pressure are being maintained.
- Chemistry Department has sampled the RCS and determined the boron concentration to be 1176 ppm.
- Reactor Engineering has indicated core average burnup is 2000 MWD/MTU.

Simulator Requirements:     N/A

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**\*\*\*\* NOTES TO EXAMINER \*\*\*\***

1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly.
2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
4. As necessary use Data Sheet to verify parameters used.

**PERFORMANCE INFORMATION**

JPM ID NUMBER: JPM-A08      TITLE: Determine Shutdown Margin

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START TIME: XXXXXXXXXX

STEP 1          Performance Steps: 1. OBTAIN present burnup from one of the following and RECORD:

- "CVBURNUP" (PPC)
- Reactor Engineering

2. RECORD RCS temperature ( $T_{AVG}$ ).

GRADE          Standards: *Examinee obtains a copy of OPS Form 2208-13, "SDM Determination in MODES 3, 4, and 5" and records burnup and  $T_{avg}$ .*

Cue:

Comments: Burnup was provided and  $T_{avg}$  used should be 532 °F.

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STEP 2 X Performance Steps: Refer To OPS Form 2208-12 and DETERMINE required shutdown boron concentration for existing core burnup and T_{AVG} and RECORD.

- If any untrippable CEA(s) *not* fully inserted, ADD 350 ppm for *each* CEA *not* fully inserted, to the required shutdown boron concentration.

GRADE X Standards: *Examinee uses burnup and T_{avg} and determines required boron on OPS Form 2208-12 and records on OPS Form 2208-13. Since trip was uncomplicated, examinee determines it is not necessary to add 350 ppm. **Tolerance is +50/-15 ppm.***

Cue:

Comments: As necessary Refer to Data Sheet for value.

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM-A08 TITLE: Determine Shutdown Margin

STEP 3 Performance Steps: RECORD present RCS boron concentration, date, and time and SIGN "Determined By" section.

GRADE Standards: *Examinee records present RCS boron concentration, date, and time on OPS Form 2208-13 and signs form.*

Cue:

Comments:

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STEP 4       Performance Steps: If xenon worth modification is applicable (i.e., post trip or shutdown), PERFORM the following once every hour for a maximum of 24 hours:  
a) RECORD date and time  
b) Refer To OPS Form 2208-5 and DETERMINE Inverse Boron Worth at present burnup.  
c) RECORD Inverse Boron Worth in column "A."

GRADE        Standards:      *Examinee identifies that xenon worth modification is applicable and uses burnup to determine inverse boron worth on OPS Form 2208-5 and records in column "A" on OPS Form 2208-13 (also date and time).  
**Tolerance is  $\pm 0.2$  ppm/% $\Delta K/K$ .***

Cue:

Comments:      As necessary Refer to Data Sheet for value.

## PERFORMANCE INFORMATION

JPM ID NUMBER: JPM-A08      TITLE: Determine Shutdown Margin

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- STEP 5       Performance Steps: NOTE: When determining the smallest xenon reactivity worth expected to occur at any time during the next 1 hour periods, the following should be considered:
- If xenon is building in, the value at the beginning of the hour should be used.
  - If xenon is decaying, the value at the end of the hour should be used.
1. Refer To one of the following and DETERMINE the *smallest* xenon reactivity worth expected within the hour being evaluated:
- "Xenon-Samarium Post Trip Report" (printed automatically on special typer following trips)
  - OPS Form 2208-4
  - "XENON-SAMARIUM DEMAND" PPC program
  - Reactor Engineering
2. RECORD xenon reactivity worth in column "B."

GRADE            Standards:      *Examinee reads note and determines that xenon is building in. Using OPS Form 2208-4, examinee determines the xenon reactivity worth value at the beginning of the hour and records in column "B" on OPS Form 2208-13.*  
***Tolerance is  $\pm 0.1\% \Delta K/K$ .***

Cue: If asked which source to use, suggest OPS Form 2208-4.

Comments: Xenon value will be 100% power equilibrium xenon.  
As necessary Refer to Data Sheet for value.

**PERFORMANCE INFORMATION**

JPM ID NUMBER: JPM-A08      TITLE: Determine Shutdown Margin

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STEP 6       Performance Steps: CALCULATE Boron Equivalent of Xenon Reactivity Worth as follows and RECORD in column "C":  
*Boron Equivalent of Xenon Reactivity Worth = (Inverse Boron Worth) x (Xenon Reactivity Worth)*

GRADE \_\_\_       Standards: *Examinee multiplies column "A" (Inverse Boron Worth) times column "B" (Xenon Reactivity Worth) and records Boron Equivalent of Xenon in column "C" on OPS Form 2208-13.*

Cue:

Comments: As necessary Refer to Data Sheet for value.  
Question the examinee as to how this result was obtained.  
This question does not constitute a critical component of this step.

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STEP 7 Performance Steps: CALCULATE Xenon Corrected Required Shutdown Boron Concentration as follows:
1. RECORD the *lowest expected* RCS T_{AVG} in the next hour.
2. Refer To OPS Form 2208-12 and DETERMINE required shutdown boron concentration.
3. RECORD required shutdown boron concentration in column "D."
4. CALCULATE and RECORD in column "E":
 • *Xenon Corrected Required Shutdown Boron Concentration = Required Shutdown Boron Concentration - Boron Equivalent of Xenon Reactivity Worth*
5. SIGN "Calculated By" column.

GRADE ___ Standards: *Examinee records data (T_{avg} as 532°F), subtracts Boron Equivalent of Xenon Reactivity Worth determined in step 6 from the Required Shutdown Boron Concentration determined in step 2 and signs OPS Form 2208-13. **Tolerance is +50/-15 ppm.***

Cue:

Comments: As necessary Refer to Data Sheet for value.
Question examinee as to how this result was obtained.
This question does not constitute a critical component of this step.

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM-A08 TITLE: Determine Shutdown Margin

STEP **8** Performance Steps: Report that SDM for the first hour, post-trip, has been verified adequate.

GRADE Standards: *Examinee states SDM reported adequate (verified) for the first hour, post-trip.*

Cue: **Acknowledge report.**

Comments: **After this step is completed, the JPM is considered complete.**

STOP TIME:

JPM ID NUMBER: JPM-A08 TITLE: Determine Shutdown Margin

DATA SHEET

The values for this data sheet must be determined and verified using the current OPS Forms in OP 2208. The data on this sheet may be updated as necessary if the data in OP 2208 changes.

RCS Boron Concentration: 1176 ppm

<u>PERFORMANCE STEP</u>	<u>VALUE</u>	<u>FORM AND REV. #</u>
Step 2: Required Shutdown Boron Concentration	1309 ppm	OPS Form 2208-12 (Rev. 19)
Step 4: Inverse Boron Worth	123.9 ppm/% $\Delta K/K$	OPS Form 2208-5 (Rev.17)
Step 5: Xenon Reactivity Worth	2.530 % $\Delta K/K$	OPS Form 2208-4 (Rev. 37)
Step 6: Boron Equivalent of Xenon	Value in step 4 times value in step 5 = 313.5 ppm	N/A
Step 7: Required Shutdown Boron Concentration	Value in step 2 minus value in step 6 = 995.5 ppm	N/A

Values Determined by: Fred Nygard Values Verified by: _____

Date 05/30/2000

Date _____

VERIFICATION OF JPM COMPLETION

Job Performance Measure No. JPM-A08

Rev. 0

Date Performed: _____

Operator: _____

Evaluator(s): _____

For examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? Yes _____ No X

Validated Time (minutes): _____ 15

Actual Time to Complete (minutes): _____

Result of JPM: _____ (Denote by an S for satisfactory or a U for unsatisfactory)

Areas for Improvement:

EXAMINEE HANDOUT

JPM ID Number: A08

Initiating Cues:

- The Unit Supervisor has directed you to verify adequate SDM for the first full hour immediately following the plant trip, taking advantage of the Xenon worth modification option, in accordance with OP 2208.

Initial Conditions:

- The plant has tripped from 100% steady-state equilibrium power. It is expected to startup in approximately 8 hours.
- The trip was uncomplicated and normal temperature and pressure are being maintained.
- Chemistry Department has sampled the RCS and determined the boron concentration to be 1176 ppm.
- Reactor Engineering has indicated core average burnup is 2000 MWD/MTU.

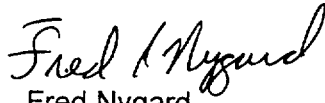
JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: RO Clearance Implementation - Tag Placement

ID Number: JPM-A06

Revision: 0

II. Initiated:


Fred Nygard

Developer

6/13/2000
Date

III. Reviewed:



Technical Reviewer

6/15/00
Date

IV. Approved:

User Department Supervisor

Date


Nuclear Training Supervisor

6/20/00
Date

JOB PERFORMANCE MEASURE WORKSHEET

Facility: MP-2 Examinee: _____

JPM Number: JPM- A06 Rev. 0

Task Title: **Hang Danger and Caution Tags**

System: Administrative

Time Critical Task: Yes ___ No X

Validated Time (minutes): 15

Task No.(s): 119-01-028

Applicable To: SRO X RO ___ PEO ___

K/A No.: 2.2.13 K/A Rating: 3.6/3.8

Method of Testing:

Simulated Performance: X Actual Performance: _____

Location:

Classroom: _____ Simulator: _____ In-Plant: X

Task Standards:

At the completion of this JPM, the examinee will start to hang tags but will recognize an abnormal condition and stop and notify the tagging authority.

Required Materials

(procedures, equipment):

- WC2 "Tagging"
- A training only clearance 2-1154-00 (attached)
- Copy of tags associated with 2-1154-00 (attached)
- P&ID 25203 26011 Sh 1
- OP 2388J

General References:

WC-2, Section 1.6 (Rev.4, Ch.2)

***** READ TO THE EXAMINEE *****

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE WORKSHEET

JPM Number: JPM-A06

Rev. 0

Initiating Cues:

- The WC SRO has directed you to place the tags for the attached clearance.

Initial Conditions:

- The attached clearance is for an AWO that provides for inspection and possible replacement of the 'A' AFW pump coupling.

Simulator Requirements: N/A

****** NOTES TO EXAMINER ******

1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly.
2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
4. Under **NO** circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM- A06 TITLE: Clearance Implementation - Tag Placement

START TIME:

- STEP 1 Performance Steps: BRIEF Tag Hanger as follows:
- Describe purpose of clearance and conditions that should be established within the clearance boundary for safe performance of work
 - Emphasize areas where work will occur (this helps ensure all work areas are drained and depressurized)
 - Discuss any non-standard steps in the clearance order

GRADE Standards: *No action by the examinee*

Cue: **Provide required brief: Hang tags for the purpose of making the 'A' AFW pump safe for coupling inspection and possible replacement. The tags are intended to keep the pump from rotating due to energy input from any source such as electrical power or flow of water through the pump. As you hang tags, ensure that the clearance meets the intended purpose. Notify me of any problem you become concerned with.**

Comments:
~~~~~

- STEP 2                      Performance Steps: REVIEW the clearance for all applicable approvals and authorizations.

GRADE                          Standards:        *Examinee reviews clearance and determines that all approvals and authorizations are complete.*

Cue:

Comments:    Will D. Is the approver for the boundary and the tags have been authorized.

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PERFORMANCE INFORMATION

JPM ID NUMBER: JPM- A06 TITLE: Clearance Implementation - Tag Placement

STEP 3 X Performance Steps: IF at any time during the performance of step 1.6.4 [Step 4 of this JPM] any of the following occur, STOP and NOTIFY the Tagging Authority:

- Proper position can *not* be determined
- If equipment is found in "other than expected" state
- If step can *not* or should *not* be performed as written
- Action does *not* meet response
- If desired conditions are *not* met or undesired conditions are encountered, stop tagging sequence.

GRADE X Standards: *Examinee review the clearance. At some point in the process, either before he leaves to hang the tags or during the process of hanging the tags, he should recognize step 2 of the clearance is incorrect and Stop and notify the Tagging.* *Italics*

Cue:

Comments: Ensure examinee does not actually hang the tags on plant equipment. The recognition of the need to stop and report may not occur until the next JPM step.

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM- A06 TITLE: Clearance Implementation - Tag Placement

- STEP 4 _ Performance Steps: With clearance order (or copy) in hand, PERFORM isolation in the sequence given on the clearance order as follows:
- a. PERFORM isolation in the sequence given on the clearance order.
 - b. INITIAL and DATE each step as it is completed.
 - c. OBSERVE the following guidelines:
 - Do *not* hang tags of different color on same component
 - Do *not* hang more than one blue tag on a component
 - Do *not* hang yellow tags with conflicting caution on component
 - Do *not* hang red tag on closed breaker
 - Tags will be conspicuously posted so that component can *not* be operated without tag being seen
 - Except for panel tags, tie-wraps will be used whenever possible
 - The use of adhesive hangers on cubicle doors to attach tags when breaker is removed is allowed
 - If possible, two people shall perform switching orders involving the switchyard, as directed by Transmission System dispatch authority
 - SRO has confirmed component is correct
 - Do *not* hang a tag on installed equipment if the label is missing
 - If tag description and label do *not* match, do *not* hang tag on the component unless tag hanger and SRO have confirmed the component is correct

- GRADE ___ _ Standards: *With clearance order (or copy) in hand, PERFORM isolation in the sequence given on the clearance order as follows:* *Italics*
- a. *PERFORM isolation in the sequence given on the clearance order.*
 - b. *INITIAL and DATE each step as it is completed.*
 - c. *OBSERVE the following guidelines:*
 - *Do not hang tags of different color on same component*
 - *Do not hang more than one blue tag on a component*
 - *Do not hang yellow tags with conflicting caution on component*
 - *Do not hang red tag on closed breaker*
 - *Tags will be conspicuously posted so that component can not be operated without tag being seen*
 - *Except for panel tags, tie-wraps will be used whenever possible*
 - *The use of adhesive hangers on cubicle doors to*

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM- A06 TITLE: Clearance Implementation - Tag Placement

- attach tags when breaker is removed is allowed*
- *If possible, two people shall perform switching orders involving the switchyard, as directed by Transmission System dispatch authority*
 - *SRO has confirmed component is correct*
 - *Do not hang a tag on installed equipment if the label is missing*
- If tag description and label do not match, do not hang tag on the component unless tag hanger and SRO have confirmed the component is correct*

Cue:

Comments: This JPM step may not be performed if the error is recognized before proceeding to the field to hang tags.

Comments: **After this step is completed, the JPM is considered complete.**

STOP TIME:

VERIFICATION OF JPM COMPLETION

Job Performance Measure No. JPM- A06

Rev. 0

Date Performed: _____

Operator: _____

Evaluator(s): _____

For examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? Yes _____ No X

Validated Time (minutes): 15

Actual Time to Complete (minutes): _____

Result of JPM: _____ (Denote by an S for satisfactory or a U for unsatisfactory)

Areas for Improvement:

EXAMINEE HANDOUT

JPM ID Number: A06

Initiating Cues:

- The WC SRO has directed you to place the tags for the attached clearance.

Initial Conditions:

- The attached clearance is for an AWO that provides for inspection and possible replacement of the 'A' AFW pump coupling.


JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: Calculate a new SG Blowdown Radiation Monitor Setpoint

ID Number: JPMA07

Revision: 0

II. Initiated:



F. Nygard
Developer

6/15/2000
Date

III. Reviewed:



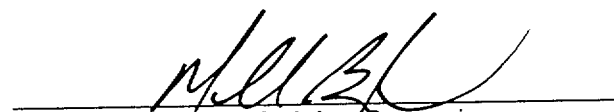
Technical Reviewer

6/15/00
Date

IV. Approved:

User Department Supervisor

Date



Nuclear Training Supervisor

6/20/00
Date

JOB PERFORMANCE MEASURE WORKSHEET

Facility: MP-2 Examinee: _____

JPM Number: JPMA07 Rev. 0

Task Title: **Adjusting SG Blowdown Radiation Monitor Setpoints**

System: Radiation Monitoring

Time Critical Task: Yes ____ No X

Validated Time (minutes): 15

Task No.(s): NUTIMS #073-01-060

Applicable To: SRO X RO X PEO ____

K/A No.: 037-AA1.13 K/A Rating: 3.9/4.0

Method of Testing:

Simulated Performance: _____ Actual Performance: X

Location:

Classroom: X Simulator: X In-Plant: X

Task Standards:

At the completion of this JPM, the examinee has calculated new RM-4262 alarm and alert values.

Required Materials

(procedures,equipment):

- OP 2383C and Attachments
- Authorized copy of OPS Form 2383C-1
- SG Blowdown RM (4262) Calibration Curve
- Calculator

General References:

OP 2383C, Sections 4.3, 4.4, 4.6 (Rev. 11, Ch.2)

****** READ TO THE EXAMINEE ******

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE WORKSHEET

JPM Number: JPMA07

Rev. 0

Initiating Cues:

- The Unit Supervisor has directed you to calculate a new SG Blowdown RM (RM-4262) setpoints, as specified in OP 2383C.

Initial Conditions:

- 4 Circulating Water Pumps are operating.
- Current reading on RM 4262 is 3200 cpm
- The SG Blowdown RM (RM-4262) has alarmed due to slowly rising activity in the SGs and blowdown (25 gpm/SG), automatically isolated 30 minutes ago.
- RM-4262 has been placed in "ALARM DEFEAT" and the local alarm has been silenced.
- SG sample results are as follows:
 - #1 SG = 6.95×10^{-7} $\mu\text{Ci/ml}$
 - #2 SG = 5.57×10^{-6} $\mu\text{Ci/ml}$

Simulator Requirements: • NA

* * * * NOTES TO EXAMINER * * * *

1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly.
2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").

PERFORMANCE INFORMATION

JPM ID NUMBER: JPMA07

TITLE: Calculating a New SG Blowdown Radiation Monitor Setpoint

START TIME: XXXXXXXXXX

STEP 1 Performance Steps:

NOTES:

1. The *alarm* setpoint for RM-4262 is based on MPC limit of 3×10^{-7} $\mu\text{Ci/ml}$ for Iodine 131. To be conservative, the MPC limit is reduced by a factor of ten to 3×10^{-8} $\mu\text{Ci/ml}$.
2. To be conservative and eliminate the need to frequently change alarm setpoints (i.e., stopping circulating water pumps), the flow value of 200,000 gpm for 2 circulating water pumps and 700 gpm for maximum blowdown is used for *alarm* setpoint calculation. Using these values yields a dilution factor of 286 and a high limit of 8.5×10^{-6} mCi/ml.

Refer To Attachment 4 and PERFORM the following:

- a) Refer To the most recent calibration curve for SG blowdown radiation monitor, RM-4262, (Radiation Monitor Setpoint Book) and CONVERT high limit from $\mu\text{Ci/ml}$ to cpm.
- b) ROUND converted number down to closest scale mark and RECORD.
- c) OBSERVE current radiation monitor reading and RECORD.
- d) MULTIPLY current radiation monitor reading by 5.
- e) ROUND value down to nearest scale mark and RECORD.
- f) SELECT *lower* value of (the two) and ENTER "High Alarm Setpoint."

If SG blowdown radiation monitor reading is still above *alarm* setpoint, Go To (other Section).

GRADE Standards:

Examinee reads notes and refers to SG blowdown RM Calibration curve (supplied) and converts high limit specified on Att. 4 ($8.5E-6$ $\mu\text{Ci/ml}$) to cpm, rounds down to nearest scale mark and records.

Examinee also observes current reading (in cpm), multiplies value times 5 and rounds down to nearest scale mark and records.

The examinee should determine that the "converted high limit" is the lower of the two and it is necessary to Refer to Att. 5 to calculate a higher setpoint.

Cue: If JPM is not being performed at RM 4262,, indicate that the cpm scale marks can be obtained from the vertical axis of the calibration curve.

Comments: The "fixed" high limit ($8.5E-6$ $\mu\text{Ci/ml}$), converts to $\sim 1,500$ cpm, which is rounded down to the closest scale mark of 1000 cpm.

PERFORMANCE INFORMATION

JPM ID NUMBER: JPMA07

TITLE: Calculating a New SG Blowdown Radiation Monitor Setpoint

STEP 2 Performance Steps: NOTES:

1. The maximum allowed *alarm* setpoint for RM-4262, is based on the following:
 - 10% of MPC limit for Iodine 131 ($10\% \times 3 \times 10^{-7} \mu\text{Ci/ml} = 3 \times 10^{-8} \mu\text{Ci/ml}$)
 - SG blowdown flow rate
 - The number of running circulating water pumps
 - Current calibration curve for RM-4262
2. If SG blowdown radiation monitor reading is still above *alarm* setpoint determined in (other Section), a higher alarm setpoint may be calculated and used. If any of the above conditions change, *alarm* setpoint must be recalculated based on actual conditions.

If SG blowdown radiation monitor reading is still above *alarm* setpoint, Refer To Attachment 5 and CALCULATE higher setpoints as follows:

- a) CALCULATE circulating water flow as follows:
Circulating Water Flow = #Running Circulating Water Pumps x 100,000 gpm.
- b) CALCULATE dilution factor as follows and RECORD:
DF = Circulating Water Flow / Blowdown Flow

GRADE Standards: *Examinee reads notes and observes number of running CW pumps, total SG blowdown flow (given), and calculates dilution factor on Att. 5.*

Cue:

Comments:

PERFORMANCE INFORMATION

JPM ID NUMBER: JPMA07

TITLE: Calculating a New SG Blowdown Radiation Monitor Setpoint

- STEP 3 Performance Steps: DETERMINE "High Alarm Setpoint" limit as follows:
- a) CALCULATE high limit as follows:
High Limit = $DF \times 3 \times 10^{-8} \mu\text{Ci/ml}$
 - b) Using most recent RM-4262 calibration curve, CONVERT high limit from $\mu\text{Ci/ml}$ to cpm.
 - c) ROUND converted number down to closest scale mark and RECORD.
 - d) OBSERVE current RM-4262 reading and RECORD.
 - e) MULTIPLY current reading by 5.
 - f) ROUND down to nearest scale mark and RECORD.
 - g) SELECT *lower* value of (the two) and ENTER "High Alarm Setpoint."

GRADE ___ Standards: *Examinee calculates new higher alarm setpoint for RM-4262 using Att. 5 by multiplying DF times $3 \times 10^{-8} \mu\text{Ci/ml}$ and converts to cpm using calibration curve. The value is then rounded down to closest scale mark on RM-4262 module.*
Examinee also observes current reading (in cpm), multiplies value times 5 and rounds down to nearest scale mark and records.
The examinee should determine that the "5 times Current Reading" is the lower of the two and should be the new alarm setpoint.

Cue:

Comments: The calculated high limit ($\sim 2.4\text{E-}4 \mu\text{Ci/ml}$), converts to $\sim 50,000$ cpm. With an actual reading of $\sim 3,200$ cpm, the desired alarm should be $\sim 16,000$ cpm which is the rounded DOWN to 10,000 cpm.

PERFORMANCE INFORMATION

JPM ID NUMBER: JPMA07 TITLE: Calculating a New SG Blowdown Radiation Monitor Setpoint

STEP 4 _ Performance Steps: DETERMINE *alert* setpoint as follows:
 a) MULTIPLY *alarm* setpoint by 0.75 and ROUND
 down to nearest scale mark.
 b) RECORD this value.

GRADE ___ _ Standards: *Examinee multiplies new alarm setpoint by 0.75, rounds down to nearest scale mark on RM-4262 module, and records new alert setpoint on Att. 5.*

Cue:

Comments: With an alarm setpoint of 10,000 cpm, the alert setpoint calculated is 7,500 cpm which is then rounded DOWN to 7,000 cpm.

~~~~~

STEP 5      \_      Performance Steps: To calculate *fail* setpoint, PERFORM the following:  
                                         a) DIVIDE current reading by 5.  
                                         b) ROUND value up to nearest scale mark and  
                                                                                                                 ENTER "Fail Setpoint."

GRADE \_\_\_      \_      Standards:      *Examinee divides current reading by 5, rounds up to nearest scale mark on RM-4262 module and records on Att. 5.*

Cue:

Comments:      With an actual reading of ~3,200 cpm, the fail setpoint calculated would be 640 cpm, which is then rounded UP to 700 cpm.

Comments:      **After this step is completed, the JPM is considered complete.**

STOP TIME: \_\_\_\_\_

VERIFICATION OF JPM COMPLETION

Job Performance Measure No. JPMA07

Rev. 0

Date Performed: \_\_\_\_\_

Operator: \_\_\_\_\_

Evaluator(s): \_\_\_\_\_

For examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? Yes \_\_\_\_\_ No X

Validated Time (minutes): 15

Actual Time to Complete (minutes): \_\_\_\_\_

Result of JPM: \_\_\_\_\_ (Denote by an S for satisfactory or a U for unsatisfactory)

Areas for Improvement:

## EXAMINEE HANDOUT

JPM ID Number: A07

### Initiating Cues:

- The Unit Supervisor has directed you to calculate a new SG Blowdown RM (RM-4262) setpoints, as specified in OP 2383C.

### Initial Conditions:

- 4 Circulating Water Pumps are operating.
- Current reading on RM 4262 is 3200 cpm
- The SG Blowdown RM (RM-4262) has alarmed due to slowly rising activity in the SGs and blowdown (25 gpm/SG), automatically isolated 30 minutes ago.
- RM-4262 has been placed in "ALARM DEFEAT" and the local alarm has been silenced.
- SG sample results are as follows:
  - #1 SG =  $6.95 \times 10^{-7}$   $\mu\text{Ci/ml}$
  - #2 SG =  $5.57 \times 10^{-6}$   $\mu\text{Ci/ml}$

RO Exam  
Administrative Topic A.4

Administrative Topics Outline Statement: Question to test knowledge of the four NRC levels of activation for the emergency plan. K/A 2.4.29 Knowledge of the emergency plan. 2.6/3.0

Question:

List the NRC classification designations for the 4 levels of Emergency Plan activation starting with the least severe to the most severe.

Answer:

The examinee's response must include the following classifications listed in the following order (from least severe to most severe).

- Unusual Event
- Alert
- Site Area Emergency
- General Emergency

The examinee's response may also include, the State of Connecticut's classification designations that corresponds to the NRC classification.

| <u>NRC</u>            | <u>Connecticut</u>  |
|-----------------------|---------------------|
| • (none)              | Echo                |
| • Unusual Event       | Delta 1 and Delta 2 |
| • Alert               | Charlie 1           |
| • Site Area Emergency | Charlie 2           |
| • General Emergency   | Bravo and Alpha     |

Reference: EPIP 4400

Administrative Topics Outline Statement: Question to test actions required when exiting a contaminated area, in full PCs, during an emergency evacuation. K/A 2.4.29  
Knowledge of the emergency plan. 2.6/3.0

Question:

You are in a contaminated area in full anti-contamination protective clothing after just completing a valve lineup verification when an announcement is made to evacuate the site via the south access points. Describe how you will exit the contaminated area.

Answer:

The examinee should include the following points in the response.

Proceed to the contaminated area exit and remove only the outer boots and gloves at the step off pad. Then exit the RCA and proceed to the exit point where a Health Physics Technician will assist in exiting the area.

The examinee may indicate that the exit point or evacuation point may be announced over the public address system.

Reference: RPM 5.2.2 and Plant Access Training Manual Chapter 9.

JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: **SRO Shift Turnover**

ID Number: JPM-A02

Revision: 1

II. Initiated:

  
Fred Nygard

Developer

07/14/2000  
Date

III. Reviewed:

  
Technical Reviewer

7/16/00  
Date

IV. Approved:

\_\_\_\_\_  
User Department Supervisor

\_\_\_\_\_  
Date

  
Nuclear Training Supervisor

7/14/00  
Date



**JOB PERFORMANCE MEASURE WORKSHEET**

Facility: MP-2                      Examinee: \_\_\_\_\_

JPM Number: JPM-A02                      Rev. 1

Task Title: **SRO Shift Turnover**

System: Administrative

Time Critical Task: Yes \_\_\_\_\_ No X

Validated Time (minutes): 10

Task No.(s): NUTIMS 119-02-030

Applicable To:      SRO SRO      RO \_\_\_\_\_      PEO \_\_\_\_\_

K/A No.: 2.1.3                      K/A Rating: 3.0/3.4

Method of Testing:

Simulated Performance: \_\_\_\_\_      Actual Performance: X

Location:

Classroom: \_\_\_\_\_      Simulator: \_\_\_\_\_      In-Plant: X

Task Standards:                      At the completion of this JPM, the SRO should perform a review of documents and find incorrect information related to a shift turnover.

Required Materials                      • Shift Manager Log (Auto Log) - (See page 7 of this JPM)  
(procedures,equipment):

General References:                      U2 COP 200.1 "Conduct of Operations", Section 1.19 (Rev.3,Ch.1 )

**\*\*\*\* READ TO THE EXAMINEE \*\*\*\***

*I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.*

## JOB PERFORMANCE MEASURE WORKSHEET

JPM Number:                   JPM-A02                  

Rev.           1          

Initiating Cues:

- Assume you have just arrived in the control room at the beginning of your shift. List the documents that you should review prior to walking down the control board.
- You may refer to any documents or procedures during this JPM and you may proceed to the control room as if you are taking the shift if necessary to list the documents that you should review.
- I will act as the off going US.

Initial Conditions:

Simulator Requirements:     N/A

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**\*\*\*\* NOTES TO EXAMINER \*\*\*\***

1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly.
2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
4. Under **NO** circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

**PERFORMANCE INFORMATION**

JPM ID NUMBER: JPM-A02 TITLE: SRO Shift Turnover

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**START TIME:** 

STEP 1      \_\_\_ Performance Steps: List the documents that you should review prior to conducting a control board walkdown during a shift turnover.

GRADE \_\_\_      \_\_\_ Standards:      *Examinee lists the type of documents that he would review. The list should include the following:*

- OPS Form 2619A-4, "Shift Turnover Report")
- Control Room Log book (ie. SM Log or Autolog)
- Night Order Log (for any new Night Orders)

*The examinee may include additional documents (ie. Radwaste Log Book (AutoLog) and Radwaste Night Order Book or others listed in Ops Form 2619A-4) that he may want to review. He may refer to and show documents he uses during a turnover.*

Cue: Suggest that the examinee proceed to the control room if it seems necessary to put the examinee at ease.

Comments: The SP 2619A-4 Shift Turnover Report lists items that should be reviewed. The operator may also refer to U2 OP 200.1 The operator may proceed to the control room if he feels the need to review or look at the procedures or documents that need to be reviewed.

~~~~~

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM-A02 TITLE: SRO Shift Turnover

STEP 2 Performance Steps: Review the SM Log (autolog) and ask the off-going operator about anything out of the ordinary.

GRADE ___ Standards: *During the review of the SM log the examinee should recognize that there is a potential problem with taking the 'B' AFW pump out of service when Facility 2 is protected. The examinee may also ask why both AFW pumps are out of service at the same time. Facility 2 is protected and 'A' AUX Feed pump out for PMs as described in the 0730 entry. The 109 and 1110 entries are related to the 'B' Aux Feed pump.*

Cue: **Provide a copy of the attached auto log and indicate that it should be examined and commented on as necessary as if this was a shift turnover..**

Comments: **After this step is completed, the JPM is considered complete.**

STOP TIME: **_____**

VERIFICATION OF JPM COMPLETION

Job Performance Measure No. JPM-A02

Rev. 1

Date Performed: _____

Operator: _____

Evaluator(s): _____

For examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? Yes _____ No X

Validated Time (minutes): 10

Actual Time to Complete (minutes): _____

Result of JPM: _____ (Denote by an S for satisfactory or a U for unsatisfactory)

Areas for Improvement:

07/01/00	0730	Shift Hours: 07-19, Tuesday, SM: H. Williamson, US: J. Hoagland, WCSRO: J. Fillion, SPO: M. Lettrich, PPO J. Jorinscay, STA:M. Strollo, U/I: K. Dingle (US), TB: G. Chaude, AB: L. Swadley, FL/FBA: M. Pucel. Plant in Mode:1, Rx power: 100 % , MWe: 904, Control Rods: ARO, Blowdown: 45gpm (#1), 45gpm (#2), RCS Circulation: RCPs, Tave: 571, Onsite Power: NSST, Pzr Level: 65%, SFP Lvl: 36' 10", TSAS: 3.4.11b act a (PZR vent path isolated), 3.3.3.9b act 2 (RM-4262), 3.7.1.2 act a ('A' Aux Feed pump out for PM's) TRMs: F.3.1.a.1 & F.3.1.a.2 (Fire Barriers), B.3.1 (U-2 fire pump), Also see Impairment sheet. Facility 2 Protected.	clairjj	myerstm
07/01/00	0810	RM-8132 is secured to change out Charcoal and Particulate filters for Chemistry. Table 3.3-13 No Action Required due to that outages are permitted for a maximum of 12 hours for the purpose of maintenance and performance of required tests, checks, calibrations, or sampling.	clairjj	myerstm
07/01/00	0817	Chemist returned RM-8132 to service, flow 3.25 CFM.	clairjj	myerstm
07/01/00	0825	Entered TSAS 3.7.6.1b. Both trains of Control Room ventilation Inoperable while testing door 249. With both trains of Control Room ventilation Inoperable immediately suspend the movement of fuel assemblies within the Spent Fuel Pool and the movement of shielded casks over the Spent Fuel Pool cask laydown area. Restore at least one Inoperable train to Operable status within 1 hour, or be in Hot Standby within the next 6 hours, and cold shutdown within the following 30 hours	clairjj	myerstm
07/01/00	0840	Exited TSAS 3.7.6.1b. Door testing complete. Both trains of Control Room ventilation are Operable.	clairjj	myerstm
07/01/00	0845	Released the following AWOs to the WIN Team: M2-00-12193 Replace gasket on LS-5331 (2B feedwater heater low level alarm)	clairjj	myerstm
07/01/00	0930	Commenced Discharge of TK-10 to LIS. Level 86%	clairjj	myerstm
07/01/00	1000	Traveling screens placed in Manual slow for greasing	clairjj	myerstm
07/01/00	1049	Shift Manager accepted 06-12 portion of 2619A-1.	clairjj	myerstm
07/01/00	1110	Released AWO M2-00-08904 for Water in Oil in 'B' Aux Feed pump.	parre	myerstm

EXAMINEE HANDOUT

JPM ID Number: A02

Initiating Cues:

- Assume you have just arrived in the control room at the beginning of your shift. List the documents that you should review prior to walking down the control board.
- You may refer to any documents or procedures during this JPM and you may proceed to the control room as if you are taking the shift if necessary to list the documents that you should review.
- I will act as the off going US

Initial Conditions:


JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: **Shift Staffing Requirements**

ID Number: JPM-A03

Revision: 1

II. Initiated:



Fred Nygard
Developer

7/15/2000

Date

III. Reviewed:



Technical Reviewer


7/16/00

Date

IV. Approved:

User Department Supervisor

Date



Nuclear Training Supervisor

7/16/00

Date

JOB PERFORMANCE MEASURE WORKSHEET

Facility: MP-2 Examinee: _____

JPM Number: JPM-A03 Rev. 1

Task Title: **Maintain minimum Control Room shift complement**

System: Administrative

Time Critical Task: Yes _____ No X

Validated Time (minutes): 10

Task No.(s): NUTIMS 119-01-050

Applicable To: SRO SRO RO _____ PEO _____

K/A No.: 2.1.4 K/A Rating: 2.3/3.4

Method of Testing:

Simulated Performance: _____ Actual Performance: X

Location:

Classroom: X Simulator: X In-Plant: X

Task Standards:

At the completion of this JPM, the SRO perform the action required in the event that an RO becomes incapacitated (can not perform licensed activities).

Required Materials

(procedures,equipment):

- Technical Specifications
- U2 OP 200.1 "Conduct of Operations"
- Operations Department Instructions
- FFDM 3.7 Call-In for Unscheduled Work

General References:

****** READ TO THE EXAMINEE ******

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE WORKSHEET

JPM Number: JPM-A03

Rev. 1

Initiating Cues:

- You are the shift manager. You are the shift manager. At 7:15 pm, M. Lettrich becomes ill and is unable to perform licensed duties. Arrangements have already been successfully implemented to transport him to a medical facility. You are to carry out required actions to ensure staffing requirements are met.

Initial Conditions:

- Mode 1 operation.
- Your crew began its 12 hour shift at 7:00 pm
- Your crew consists of:
 - ◊ SM: H. Williamson
 - ◊ STA: M. Strollo
 - ◊ US: R. Parrette
 - ◊ WC-SRO: not staffed
 - ◊ CO: J.Jorinscay
 - ◊ CO: M. Lettrich
 - ◊ PEO: L. Swadley
 - ◊ PEO: M. Purcel
 - ◊ PEO: H. Dukette
- Current Date: 28-Jun WED
- Current time is 7:30 pm
- Off-going crew has left the site


Simulator Requirements: N/A

****** NOTES TO EXAMINER ******

1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly.
2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
4. Under **NO** circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM-A03 TITLE: Shift Staffing Requirements

START TIME: 

STEP 1 Performance Steps: Evaluate current staffing level meets requirements of Technical Specifications Section 6.2 Table 6.2-1.

GRADE Standards: *Examinee evaluates staffing level and determines that another RO must report within 2 hours.*

Cue: 

Comments: U2 OP 200.1 Section 1.8 (Level of Use Information)

~~~~~

STEP 2         Performance Steps: Determine which operator to call in.

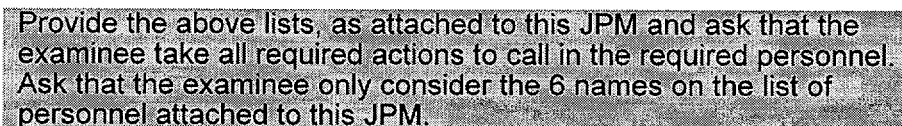
GRADE         Standards:      *Determine which operator to call in by referring to:*

- *Operations Shift Schedule*
- *Work Control and Training Schedule*
- *Active License List*
- *Overtime List*

*Selects an RO with an active license who will not exceed overtime limits.*

*Of the personnel on the list:*

- *C. Sanders - not selected because just got off shift (will exceed 16 hours - NGP 1.09)*
- *B. Miles - not selected because LOIT student*
- *T. Grilley - not selected because of inactive license*
- *B. Gaynier - not selected because he is in training (may exceed 16 hours - NGP 1.09)*
- *P. Sikorski - may be selected*
- *T. Perkins - may be selected*

Cue: 

Comments: ODI 2-OPS 2.03 "Overtime", ODI 2-OPS-1.18 "Maintaining Active NRC Licenses", NGP 1.09 "Overtime Controls for All Personnel at Millstone Station"

~~~~~

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM-A03 TITLE: Shift Staffing Requirements

STEP 3 _ Performance Steps: Contact the individual selected to support unscheduled work. Ask individual the following questions:

- Have you consumed any alcoholic beverages within the past 5 hours?
- Have you consumed any alcoholic beverages that may affect your ability to perform assigned duties?
- Have you taken any medications or drugs that may affect your ability to perform assigned duties?

GRADE ___ Standards: *Contact the individual selected to support unscheduled work. Ask individual the following questions:*

- *Have you consumed any alcoholic beverages within the past 5 hours?*
- *Have you consumed any alcoholic beverages that may affect your ability to perform assigned duties?*
- *Have you taken any medications or drugs that may affect your ability to perform assigned duties?*


Ask T. Perkins to come to work

Cue: *If called, respond as indicated below:*

- *C. Sanders - I just got off shift and I am scheduled tomorrow*
- *B. Miles - I am a LOIT student*
- *T. Grilley - Is my license active?*
- *B. Gaynier - I just got home from being in LORT all day and I am supposed to go to training tomorrow.*
- *P. Sikorski - First Question: I had a couple of glasses of wine with dinner an hour ago; Second question: Yes. Third question: No; If asked "Do you feel fit to perform your assigned duties? Answer - No.*
- *T. Perkins - First Question: No; Second question: No. Third question: No; If asked to come to work reply yes.*

Comments: FFDM 3.7 Call-In for Unscheduled Work

Comments: **After this step is completed, the JPM is considered complete.**

STOP TIME: 

VERIFICATION OF JPM COMPLETION

Job Performance Measure No. JPM-A03

Rev. 1

Date Performed: _____

Operator: _____

Evaluator(s): _____

For examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? Yes _____ No X

Validated Time (minutes): 10

Actual Time to Complete (minutes): _____

Result of JPM: _____ (Denote by an S for satisfactory or a U for unsatisfactory)

Areas for Improvement:

For purposes of this JPM, Select the individual to be called in from the list of names below:

C. Sanders

B. Miles

T. Grilley

B. Gaynier .

P. Sikorski

T. Perkins

June 14, 2000

To: Shift Managers

From: Operations Manager

Subject: Active License List

For the purpose of this JPM, the Unit 2 Operations Department Roster dated June 7 show who have active licenses as follows:

- All personnel shown in the SM and US positions have active SRO licenses.
- All persons shown in the CO positions the have active RO licenses.

Exempt Personnel Overtime List

For purpose of this JPM, all personnel have equal amounts of overtime.

All personnel have been on normal shift rotation: No extra work has been assigned.

Unit 2 Operations Department Personnel Roster June 7, 2000

SHIFT					
	A	B	D	E	F
SM	Truesdale, Ken	Myers, Steve	Myers, Tom	Williamson, H.	Kunze, Jim
US	Weiso, Mike	Chapin, Cliff	Claire, John	Fillion, John	Armour, Rich
US	Rossi, Anthony	Zorn, Carl	Doboe, Sandra	Hoagland, Jim	Duffy, Howard
US/UI					Ewers, Martin
CO	Brown, Jason	Muldoon, Mike	Hall, Tim	Howes, Scott	Daskam, Jon
CO	Perkins, Todd	Sikorski, Pat	Sanders, Cathy	Jorinscay, Jim	Gaynier, Brian
CO	Seacor, Ed	Cox, Richard	Ferguson, Bruce	Lettrich, Matt	Mausteller, L.
PEO	Harris, Andy	Pieper, Pat	Furiosi, Michael	Chaude, Gene	Hambly, Pat
PEO	Griffin, Chip	Bowen, Russ	Baker, Gerry	Swadley, Larry	Zummo, Jamie
PEO	Gonya, Bill	Eckenrode, B.	Aument, Scott	Pucel, Marc	Stilphen, Jim
PEO	Carter, Colette	Orf, Buster			Garza, Marcos
PEO/UI	Hoxie, Greg	Hobbs, Kevin	McBeth, Roger	Searle, Herb	Chatfield, Dave
PEO/UI				Goldsmith, Dick	Riley, John

WC-SRO	Dubay, Ted	Nelson, Larry			
Ops Asst	Moriarty, Tom	Rein, John			
SM Quals	Parrette, Randil				
WC-PEO	Dukette, Henry	Kostopoulos, N.	Carroll, Rich		
FIN Team	Smith, Tony	Wilkens, Bryce			
LOUT	Haff, Zack	Seacor, Ed	Ferguson, Bruce		
LOIT	Strickland, Pete	Chesnutt, Will	Dingle, Kevin	Funk, Doug	Wasylik, John
	Jacobs, Dave	Spakowski, Tina	Samson, Andy	Donch, Eric	Snyder, Pete
	Miles, Bill	Becbe, Jeff			

DAY STAFF		
Ops Manager	Hagan, Dan (SRO)	
Assistant Ops Manager	Baker, Steve (SRO)	
Ops Tech.	Cassidy, Pat	
Unit Coordinator	Mullin, Mike (SRO)	
Admin. Staff	Lafaille, Joan	Swanson, Shannon O'Neill, Diane
NOTES:		
1. For changes in status, please contact Shannon Swanson x4483 (or email: swanssr)		
2. Distribution: D. Hagan P. Cassidy Control Room Training (T. Grilley)		
S. Baker J. Lafaille Work Control Security (FAX to 5558)		

Post # 17 Date 6/7/00 # of pages 1/1
 Fix No R7673
 To Tim Grilley
 Fax # 2671
 From Shannon
 Phone # _____

Millstone Unit 2 Operations Shift Schedule

REV. 0	25-Jun SUN	26-Jun MON	27-Jun TUE	28-Jun WED	29-Jun THU	30-Jun FRI	01-Jul SAT
12-Jun	DAY SHIFT (0700 - 1900)						
SM	T Dubay	T Dubay	T Dubay	T Myers	T Myers	T Myers	T Myers
STA	B Maloney	B Maloney	B Maloney	M Gobeli	M Gobeli	M Gobeli	M Ciccone
US	C Chapin	C Chapin	C Chapin	J Claire	J Claire	J Claire	M Weise
WC-SRO	C Zorn	C Zorn	C Zorn	S Doboie	S Doboie	S Doboie	A Rossi
CO	M Muldoon	M Muldoon	M Muldoon	-	-	-	T Perkins
CO	P Sikorski	P Sikorski	P Sikorski	T Hall	T Hall	T Hall	T Hall
CO	R Cox	R Cox	R Cox	C Sanders	C Sanders	C Sanders	-
PEO	P Pieper	P Pieper	P Pieper	-	-	-	G Griffin
PEO	R Bowen	R Bowen	R Bowen	S Aument	S Aument	S Aument	A Harris
PEO	B Eckenrode	B Eckenrode	B Eckenrode	M Furiosi	M Furiosi	M Furiosi	W Gonya
PEO	B Orf	B Orf	B Orf	R Bowen	B Orf	C Carter	-
PEO U/I	K Hobbs	K Hobbs	K Hobbs	R McBeth	R McBeth	R McBeth	C Carter
PEO U/I	-	-	-	-	-	-	G Hoxie
	NIGHT SHIFT (1900 - 0700)						
SM	K Truesdale	K Truesdale	K Truesdale	H Williamson	H Williamson	H Williamson	H Williamson
STA	M Ciccone	M Ciccone	M Ciccone	M Strollo	M Strollo	M Strollo	M Strollo
US	M Weise	M Weise	M Weise	R Parrette	R Parrette	R Parrette	R Parrette
WC-SRO	A Rossi	A Rossi	A Rossi	J Fillion	J Fillion	J Fillion	J Fillion
CO	J Brown	J Brown	J Brown	J Jorinscay	J Jorinscay	J Jorinscay	J Jorinscay
CO	T Perkins	T Perkins	T Perkins	M Lettrich	M Lettrich	M Lettrich	M Lettrich
PEO	G Griffin	G Griffin	G Griffin	-	-	-	-
PEO	A Harris	A Harris	A Harris	L Swadley	L Swadley	L Swadley	L Swadley
PEO	W Gonya	W Gonya	W Gonya	M Pucel	M Pucel	M Pucel	M Pucel
PEO	C Carter	C Carter	C Carter	H Dukette	H Dukette	H Dukette	-
PEO U/I	G Hoxie	G Hoxie	G Hoxie	H Searle	H Searle	H Searle	H Soarlo
PEO U/I	-	-	-	D Goldsmith	D Goldsmith	D Goldsmith	D Goldsmith

Post-it 16/12 # of pages 2
 Fax Note R7673
 To Jackie
 Fax# 2971
 From Shannon
 Phone# 4483

Millstone Unit 2 Training and Work Control

REV. 0	25-Jun SUN	26-Jun MON	27-Jun TUE	28-Jun WED	29-Jun THU	30-Jun FRI	01-Jul SAT
12-Jun	WORK CONTROL & RELIEF CREW						
Ops Asst		J Rein	J Rein	J Rein	J Rein	J Rein	
WC-TAG		Kostopoulos	-	-	-	-	
WC-TAG		R Carroll	R Carroll	R Carroll	R Carroll	R Carroll	
FIN Team		T Smith	T Smith	T Smith	T Smith	T Smith	
FIN Team		B Wilkens	B Wilkens	B Wilkens	B Wilkens	B Wilkens	
TRAINING							
PER TRAINING SCHEDULE			J Kunze	J Kunze	J Kunze	J Kunze	
			T Arnett	T Arnett	T Arnett	T Arnett	
			R Armour	R Armour	R Armour	R Armour	
			H Duffy	H Duffy	H Duffy	H Duffy	
			M Ewers	M Ewers	M Ewers	M Ewers	
			B Gaynier	B Gaynier	B Gaynier	B Gaynier	
			J Daskam	J Daskam	J Daskam	J Daskam	
			L Mausteller	L Mausteller	L Mausteller	L Mausteller	
			J Zummo	J Zummo	J Zummo	J Zummo	
			P Hambly	P Hambly	P Hambly	P Hambly	
			M Garza	M Garza	M Garza	M Garza	
			J Stilphen	J Stilphen	J Stilphen	J Stilphen	
			D Chatfield	D Chatfield	D Chatfield	D Chatfield	
			Kostopoulos	Kostopoulos	Kostopoulos	Kostopoulos	
		J Riley	J Riley	J Riley	J Riley		
Personnel not Available							
SM	S Myers	S Myers	S Myers	S Myers	S Myers	S Myers	S Myers
SM	L Nelson	L Nelson	L Nelson	L Nelson	L Nelson	L Nelson	L Nelson
SM	-	-	-	-	K Truesdale	K Truesdale	K Truesdale
US	J Hoagland	J Hoagland	J Hoagland	J Hoagland	J Hoagland	J Hoagland	J Hoagland
CO	S Howes	S Howes	S Howes	S Howes	S Howes	S Howes	S Howes
CO	-	-	-	J Brown	J Brown	J Brown	J Brown
PEO	G Chaude	G Chaude	G Chaude	G Chaude	G Chaude	G Chaude	G Chaude
PEO	G Baker	G Baker	G Baker	G Baker	G Baker	G Baker	G Baker

Approved: Patricia Cassidy

EXAMINEE HANDOUT

JPM ID Number: A03

Initiating Cues:

- You are the shift manager. At 7:15 pm, M. Lettrich becomes ill and is unable to perform licensed duties. Arrangements have already been successfully implemented to transport him to a medical facility. You are to carry out required actions to ensure staffing requirements are met.

Initial Conditions:

- Mode 1 operation.
- Your crew began its 12 hour shift at 7:00 pm
- Your crew consists of:
 - ◇ SM: H. Williamson
 - ◇ STA: M. Strollo
 - ◇ US: R. Parrette
 - ◇ WC-SRO: not staffed
 - ◇ CO: J. Jorinscay
 - ◇ CO: M. Lettrich
 - ◇ PEO: L. Swadley
 - ◇ PEO: M. Purcel
 - ◇ PEO: H. Dukette
- Current Date: 28-Jun WED
- Current time is 7:30 pm
- Off-going crew has left the site

JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: **SRO Approve a Radioactive Liquid Waste Release Permit**

ID Number: JPM-A05

Revision: 1

II. Initiated:

Fred Nygard
Developer

7/15/2000
Date

III. Reviewed:

Technical Reviewer

7/16/00
Date

IV. Approved:

User Department Supervisor

Date

Nuclear Training Supervisor

7/14/00
Date

JOB PERFORMANCE MEASURE WORKSHEET

Facility: MP-2 Examinee: _____

JPM Number: JPM-A05 Rev. 1

Task Title: **Determine plant conditions required to perform surveillances**

System: _____

Time Critical Task: Yes _____ No X

Validated Time (minutes): 10

Task No.(s): NUTIMS # 119-02-026

Applicable To: SRO X RO _____ PEO _____

K/A No.: 2.3.6 K/A Rating: 2.1/3.1

Method of Testing:

Simulated Performance: X Actual Performance: _____

Location:

Classroom: X Simulator: X In-Plant: X

Task Standards:

At the completion of this JPM, the examinee will have discovered a plant operating condition that will prevent discharging a radioactive liquid waste discharge permit that will prevent the discharge from commencing.

Required Materials (procedures,equipment):

- SP 2617A "Aerated and Clean Radioactive Liquid Waste Discharges
- Chem Form 2864-1 "Millstone Unit 2 Liquid Discharge Permit Number

General References:

SP 2617A, Section 4.3.7 and 4.3.8 (Rev. 26, Ch. 4)

****** READ TO THE EXAMINEE ******

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE WORKSHEET

JPM Number: JPM-A05

Rev. 1

Initiating Cues:

- You are the SM and you have directed that the "A" CWMT be discharged. Take action to continue preparations for the discharge.

Initial Conditions:

- Your shift is performing SP 2617A section 4.3 "Recirculating and Discharging CWMTs"
- The Rad waste PEO has completed SP 2617A steps 4.3.1 through 4.3.6 in preparation for discharging the "A" CWMT.
- "A" CWMT, CWM TK MIXER, MT-15A is not available

Simulator Requirements: N/A

****** NOTES TO EXAMINER ******

1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly.
2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
4. Under **NO** circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

PERFORMANCE INFORMATION

JPM ID NUMBER: JPM-A05 TITLE: SRO Approve a Radioactive Liquid Waste Release Permit

START TIME:

STEP 1 Performance Steps: When Chem. Form 2864-1 (Discharge Permit) is obtained from Chemistry Department, SM Review and Authorize Chem. Form 2864-1 "Millstone Unit #2 Liquid Discharge Permit No. XXXX," for discharge.

GRADE Standards: *SM should review and initial Form 2864-1 as shown in the attached Key. If examinee asks for plant conditions before he initials the permit and becomes aware that the discharge should not be made, he may elect not to initial the permit.*

Cue:

Comments:

~~~~~

STEP 2  Performance Steps: When Chem. Form 2864-1(Discharge Permit) is authorized, SM or US Refer to OPS Form 2617A-1 and Perform the following:

- Review plant conditions and Authorize discharge.
- Ensure no other radioactive discharges are in progress (other than SG blowdown) and initial.
- If discharge is to be performed with radiation monitor not Operable, Ensure 2 independent samples have been analyzed for CWMT , as specified on Chem Form 2852-1, "Unit 2 Liquid Radwaste Effluent Rad Monitor Inoperative" and Initial.

GRADE      Standards: *Examinee reviews plant conditions and determines that the discharge is not authorized or states that the discharge and back wash operation can not be performed concurrently.*

Cue:

Comments: Not authorized because plant conditions indicate that a backwash of the 'B' Water Box is ready to commence . OP2325D step 4.1.2 is not met because the discharge permit calculation was done for 3 circulation water pumps.

~~~~~

Comments: **After this step is completed, the JPM is considered complete.**

STOP TIME:

VERIFICATION OF JPM COMPLETION

Job Performance Measure No. JPM-A05

Rev. 1

Date Performed: _____

Operator: _____

Evaluator(s): _____

For examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? Yes _____ No X

Validated Time (minutes): 10

Actual Time to Complete (minutes): _____

Result of JPM: _____ (Denote by an S for satisfactory or a U for unsatisfactory)

Areas for Improvement:

FOR TRAINING ONLY

SIGNATURE ON FILE

5-28-98

6-11-98

Approved

Approval Date

Effective Date

MILLSTONE UNIT #2

LIQUID DISCHARGE PERMIT NO. 2049

(SP30977)

Tank.....: A CWMT
 Sampled by.....: Wm
 TSS (ppm)..: 0.5 (AWMT limit = 45 ppm; CWMT limit = 22.5 ppm)
 Boric acid conc= 6835 (ppm) Eff. Monitor Bkg= 3.1E+4 (cpm)
 pH= 5.31 (>2 and <12.5)
 Date/time sampled...: 8-JUN-2000 21:00
 Date/time on recirc.: 8-JUN-2000 11:35

$N_2H_4 \leq 0.35 \text{ ppm}$
 $ETA \leq 6.5 \text{ ppb}$

Isotope	Activity (uCi/ml)	MPC (uCi/ml)	Activity/MPC
CR-51	7.178E-05	2.000E-03	3.589E-02
CO-58	3.601E-05	9.000E-05	4.001E-01
CO-60	4.501E-06	3.000E-05	1.500E-01
NB-95	3.431E-07	1.000E-04	3.431E-03
AG-110M	6.492E-07	3.000E-05	2.164E-02
XE-133	2.794E-06		
CS-137	9.919E-07	2.000E-05	4.960E-02
CE-141	9.163E-07	9.000E-05	1.018E-02
H-3	1.080E-02	3.000E-03	3.600E+00
Totals	1.152E-04 (@)		4.271E+00

(*) No gasses or H-3 included in totals, however, H-3 is in Activity/MPC col.

2 circulating water pumps must be in operation during a discharge

During Unit 2 shutdown a min. dilution flow of 20,000 gpm is allowable with the discharge rate limited to 30.5 gpm.

Diluted gas concentration (uCi/ml) = 3.175E-09

Wm INIT

Minimum recirc time is ...: 2.0 hr w/mixer; 7.7 hr w/pump
 Administrative quarterly release limit (Ci)...: 5.000E-02
 Total activity released this quarter (Ci)....: 1.380E-02
 Estimated volume this discharge (gal).....: 25000.
 Estimated activity this discharge (Ci).....: 1.090E-02
 Est total activity released this quarter (Ci): 2.470E-02

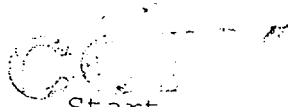
- (1) Reduction factor.....: 2.341E-01 S.M. init
- (2) Required dilution flow rate.....: 308000. (gpm) _____
 3 circ water, 2 service water pump(s)
- (3) Normal rate limit (flow rate=#1*#2*0.1)...: 350. (gpm) _____
- (5) Liquid effluent monitor alarm setting
 (ALARM)..: 7.77E+4 (cpm) _____

Maximum approved rate.....: 350 (gpm) _____
 (Authorization required to exceed normal rate limit.)

Source check performed.....: _____

DISCHARGE

DATE/TIME	DILUTION FLOW RATE	INTEGRATOR READING	DISCHARGE OPERATOR
-----------	--------------------	--------------------	--------------------



(gpm)

(4*DIFF=gal)

RATE (gpm)

Start

_____	_____	_____	_____
_____	_____	_____	_____

Liquid eff monitor reading 15 min after start of discharge _____ (cpm)

Total liquid waste discharged _____ (gal) * 3785 _____ (ml)

Liquid eff monitor Bkg reading after flush _____ (cpm)

Shift Manager _____ Date _____ Time _____

Chem Form 2864-1
Rev. 1
Page 1 of 1

FOR TRAINING ONLY

Plant Conditions

100% power, equilibrium steady state conditions

Normal Operating Temperature and Pressure

SG blowdown is 49 GPM on #1 SG and 51 GPM on #2 SG

No other discharges radioactive discharges are in progress

Procedures in Use

- SP 2617A section 4.3; Steps 4.3.1-4.3.6 have been completed for the 'A' CWMT.
 - Filtered recirculation is not being used
 - Chemistry Sample Results are acceptable
 - RM-9049 is operable

- OP 2325D 'Mussel Cooking and Backwashing Operations' section 4.5 is in progress and Steps 4.5.1 - 4.5.6 have been completed.

- SP13E-1 'Diesel Fuel Oil Sample Analysis'

EXAMINEE HANDOUT

JPM ID Number: A05

Initiating Cues:

- You are the SM and you have directed that the "A" CWMT be discharged. Take action to continue preparations for the discharge.

Initial Conditions:

- Your shift is performing SP 2617A section 4.3 "Recirculating and Discharging CWMTs"
- The Rad waste PEO has completed SP 2617A steps 4.3.1 through 4.3.6 in preparation for discharging the "A" CWMT.
- "A" CWMT, CWM TK MIXER, MT-15A is not available

JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: **EAL Classification**

ID Number: JPM-A09

Revision: 0

II. Initiated:



Fred Nygard
Developer

7/15/00

Date

III. Reviewed:



Technical Reviewer

7/15/00

Date

IV. Approved:

User Department Supervisor

Date



Nuclear Training Supervisor

7/16/00

Date

JOB PERFORMANCE MEASURE WORKSHEET

Facility: MP-2 Examinee: _____

JPM Number: JPM-A09 Rev. 0

Task Title: **EAL Classification**

System: Emergency Plan

Time Critical Task: Yes ____ No X

Validated Time (minutes): 15

Task No.(s): NUTIMS #000-05-205

Applicable To: SRO X RO ____ PEO ____

K/A No.: 2.4.41 K/A Rating: 4.1

Method of Testing:

Simulated Performance: ____ Actual Performance: X

Location:

Classroom: ____ Simulator: X In-Plant: ____

Task Standards:

At the completion of this JPM, the examinee has classified the event that occurred in the simulator scenario that was just completed.

Required Materials

(procedures,equipment): EPIP 4400
EPIP Form 4400-2

General References:

EPIP Form 4400-2 (Rev. 4)

****** READ TO THE EXAMINEE ******

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE WORKSHEET

Initiating Cues:

- You are the on-duty SM.
- Your task is to determine the NRC and state posture code classification for the simulator scenario that has just been completed.
- For purposes of this classification, assume the conditions shown on the simulator at completion of the scenario.

Initial Conditions:

- Assume the conditions as shown on the simulator at the completion of the scenario.
- Consider historical event data that may be provided by the examiner.

Simulator Requirements: N/A

***** NOTES TO EXAMINER *****

1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, **ALL** critical steps must be completed correctly.
2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".